

REMARKS

Claims 1, 117-126, 129, 133-136, 138, 140-141, 147-148, 150-163 and 170-178 were pending, with claims 138, 141, and 151 withdrawn from consideration as being drawn to nonelected species.

Upon entry of the present Amendment, claims 1, 117-126, 129, 133-136, 138, 140-141, 147-148, 150-163 and 170-178 will be pending with claims 1, 117-126, 129, 133-136, 140, 147-148, 150, 152-163 and 170-178 under consideration.

With this Amendment, claim 1 has been amended for clarity. Specifically, claim 1 has been amended to remove the term “principal” from line 20 of the claim. Support for this amendment is found in claim 51 as originally filed. See also claim 51 of priority publication No. WO2005/013090.

With this Amendment, claims 120, 148, 156, 158, 172 and 175 have been amended to resolve minor issues relating to (i) correcting typographical errors, (ii) correcting for antecedent basis, or (iii) clarity.

With this Amendment, claim 138 has been amended to specify “partial least squares projection to latent variables.” Support for this amendment to claim 138 is found on page 12, line 21, through page 13, line 2, of the specification.

With this Amendment, the specification has been amended to correct typographical errors.

Accordingly, no new matter has been entered by way of the amendments to the claims or the specification.

APPLICANTS' INTERVIEW SUMMARY

Applicants thank Examiner Shubo Zhou for the courtesies extended during the telephone interview on May 11, 2011, hereinafter “the Interview,” with Applicants’ representative Brett Lovejoy. During the Interview, Brett Lovejoy indicated that Applicants would be willing to remove the term “principal” from claim 1. Examiner Shubo Zhou indicated that, if this amendment was made, there would be no pending rejections in this case and thus the withdrawn claims would be rejoined. Examiner Shubo Zhou indicated that a search would have to be done

on the subject matter of the withdrawn claims and that, therefore, a request for continued examination (“RCE”) would need to be filed along with a response to the Office Action.

Brett Lovejoy stated that the response would be filed on May 11, 2011. Examiner Shubo Zhou indicated that he would assign the search on the withdrawn claims a high priority once he receives the response to the Office Action and the RCE is filed. Examiner Shubo Zhou invited Brett Lovejoy to remind him of this matter one week after filing the response to the Office Action and the RCE.

THE OBJECTION TO THE SPECIFICATION SHOULD BE WITHDRAWN

In the Office Action, the Examiner objected to the specification because a period appears to be missing after the recitation of the phrase “PAM matrix” on page 50 of the specification. With this Amendment, Applicants have amended the specification to correct this typographical error. Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

THE 35 U.S.C. § 112, FIRST PARAGRAPH, REJECTION OF CLAIMS 1, 117-126, 129, 133-136, 138, 140-141, 147-148, 150-163 AND 170-178 SHOULD BE WITHDRAWN

On page 3 of the Office Action, the Examiner rejected claims 1, 117-126, 129, 133-136, 138, 140-141, 147-148, 150-163 and 170-178 under 35 U.S.C. § 112, first paragraph, because the sequence-activity relationship specified in claim 1, having the form:

$$Y = f(w_1x_1, w_2x_2, \dots, w_ix_i)$$

defines x_i as a descriptor of:

“a substitution, a combination of substitutions, or a **principal component** of one or more substitutions, at one or more positions in the plurality of positions”

Claim 1, (emphasis added)

whereas cancelled claim 52, which recited the sequence-activity relationship having the same form, defines x_i as a descriptor of:

“a substitution, a combination of substitutions, or a **component** of one or more substitutions, at one or more positions in the plurality of positions”.

Claim 52 of WO2005/0130090, (emphasis added)

The Examiner failed to find support in the specification for x_i as a descriptor of a principal component. On this basis, the Examiner asserts that x_i defined as a descriptor of “a principal component” recited in claim 1 is new matter. Claims 117-126, 129, 133-136, 138, 140-141, 147-148, 150-163 and 170-178 each ultimately depend from claim 1 and thus were rejected for the same reason as claim 1.

While Applicants continue to believe that the specification supports x_i as a descriptor of a principal component, in order to expedite prosecution and obtain early allowance of the above-identified patent application, Applicants have amended claim 1 to remove the term “principal.” Applicants reserve the right to file one or more continuation or continuation-in-part patent applications directed to claims where x_i is a descriptor of a principal component. In view of the removal of the term “principal” from claim 1, Applicants request that the 35 U.S.C. § 112, first paragraph, rejection of claims 1, 117-126, 129, 133-136, 138, 140-141, 147-148, 150-163 and 170-178 be withdrawn.

CONCLUSION

Applicants respectfully request entry of the foregoing remarks into the file of the above-identified application. If any fees are due in connection with this submission, please charge the required fee to Jones Day Deposit Account No. 50-3013.

Respectfully submitted,

Date:	<u>May 11, 2011</u>	<u>/ Brett Lovejoy /</u>	<u>42,813</u>
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